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Effect Of Bank Concentration On Capital Structure Of Pakistani Nonfinancial Companies

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Abstract

This study examines the effect of bank concentration on financial leverage of Nonfinancial Pakistani companies controlling for firm specific determinants of the firm leverage covering the period 2006-2017.As regards bank concentration, thestudy targets 29 Pakistani banks whereas for the firm leverage, aggregate data of all the nonfinancial companies are taken, listed on the Pakistan Stock Exchange. Descriptive statistics and multiple regression analysis were used to analyze the data.Results indicate the significant positive effect of bank concentration on firm leverage in line with the information-based hypothesis implying that the high bank concentration may reduce information asymmetry between the banks and borrowers to improve the firms' credit access.Results of the study may have implications for the academicians and mangers to comprehend the bank concentration effects in view of determination of the firm leverage and firms' access to the credit.

KeyWords: Bank Concentration, Firm Leverage, Information-Based Hypothesis, Market Power Theory, Pecking Order Theory, Trade-off Theory.

1. Introduction

Firms are involved in the adjustment of their capital structure in the aftermath of competition (Jiang et al., 2017).The capital structure mainly relies on two sources, debt and equity. The existing literature documents a number of capital structure determinates like profitability, firm asset tangibility and size, growth opportunities, non-debt tax shields, managerial shareholding and liquidity (Huang & Song, 2006; M'ng et al., 2017; &Cevheroglu-Acar, 2018).

There is increasing support in the pertinent literature regarding the bank concentration as a variable withthe suggestive effect on firm capital structure, endorsing the view that financial crises may less likely occur in case of more concentrated banks with few large banks (Allen& Gale, 2001; Beck et al., 2003a). This is so because bank concentration increases the profit level which provides a cover against the shocks and results in less exposure to the risk (Hellmann et al., 2000).Low interest margins may also likely to be gained in markets where there is less bank concentration (Degryse et al., 2009).Ratti et al.(2008) found that concentrated banks face less financial constraints during expansionary periods and recessions along with promoting the economic growth through improving the credit access and positively allocating the investment. Dick (2006) documented that increased bank concentration is associated with improved access of consumers to

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the fee free networks. Studies also highlight that increased concentration of state banks are associated with low competition (La Porta et al., 1997; Berger et al., 2004).

Pakistan's banking industry has experienced fast progress; however, concentrated structure of the banks along with persistent high bank spreads have raised questions regarding the policy specific issues related to the banking sector competition (Khan, 2009). The bank consolidation process intended to meet capital requirement of the State Bank of Pakistan (SBP) also hasstimulated the interest to investigate the bank concentration phenomena as the same may affect the competition by reducing the number of banks (Khan, 2009). The big five banks, dominates the overall banking system in terms of credit access and asset share (concentration). Other sectors of economy are mainly dependent on these banks to fulfill their debt financing requirement thus affecting their capital structure. In this regard, this study investigates the bank concentration effects on leverage of Pakistan companies. It will be a significant endeavor to assess the concentration of Pakistani banks and to examine its effect on firm leverage which will also have managerial implications for the target companiesin determination of their optimal capital structure. Besides, in Pakistan, a number of studies are conducted documenting a number of determinates of capital structure specifically the debt financing including liquidity, profitability, earnings volatility, firm size, tangibility, business risk, firm age and firm growth.(Hijazi & Tariq, 2006; Akbar et al., 2009; Ahmed et al., 2010; Sheikh & Wang, 2011; Kabeer & Rafique, 2018; Ullah et al., 2018; Andaleeb et al., 2018; Khan, 2018). However, no specific study has been undertaken investigating the bank concentration effect on capital structure. Therefore, this study will also fill the underlying gap.

2. Literature review

Bank concentration is ratio (share) of the assets of the top three or five banks (Owen & Pereira, 2018). Bank concentration also refers to reduction in the number of banksalong with increase in average size of the banks which means large size few banks (Boyd & Graham, 1991). The existing literature revolves around the following theories considering the relationship of bank concentration with firm leverage and other factors affecting the firm leverage.

2.1 Market Power Theory

The first pertinent theory related to bank concentration is the market power theory which holds the view that firms have the ability to increase market prices of their products or services in order to increase their profitability which specifically favor the large firms in comparison to the small ones (Collins & Preston, 1969, Martin, 1988; Carbó-Valverde et al., 2009).Beck et al. (2003b) identified that in line with the market power theory, bank concentration results in financial constraints and decreases the firms' access to bank credit as the prevailing interest rates for the borrowers increase when banks are more concentrated in a market. The same view is also endorsed by Hake (2012) who asserts that in markets where banks are concentrated, the probability of greater loan cost and low debt could be high. Baert & Vannet (2008) based on a study undertaken on EU15 nonfinancial firms for the period 1997 to 2005, noticed significant negative relationship of bank concentration with firm leverage suggesting presence of debt constraints for these firms. Their results supported the market power hypothesiswith recommendation that the bank lending may be provided at more competitive rates. Carbó-Valverde et al. (2009) conducted a research on Spanish Small and Medium Enterprises (SMEs). Their results also backed the market power hypothesis with underlying argument that the bank concentration is associated with low availability of credit and high interest rates. Recently a study conducted by Bahsh et al. (2018) on Jordanian firms also backed the market power hypothesis with supporting negative effect of the

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bank concentration on firm leverage. Hall (2018) also documented positive relationship between market power of banks and their lending rates for the US firms.

2.2 Information-Based Hypothesis

Information-basedhypothesis holds that considering the information asymmetries and agency cost, a positive relationship can be noted in a dynamic environment between market power and the credit accessofopaque borrowers. In support of information-based hypothesis, Petersen and Rajan (1995) assert that the market power incentivizes banks to establish long-lived relationship with young borrowers as they can share future surplus with the banks which induce creditors in concentrated markets to accept even low returns.DeYoung et al. (1999) found the positive effect of bank concentration on lending of the small businessesin urban markets while in rural markets, its effect wasnoted moderately negative. Bank concentration decreases the credit supply but increases the banks' potential to improve the lending efficiency in terms of better screening of borrowers, hence as regards banking sector, the optimal market structure that enhances the economic development will be oligopoly rather than perfect competition or monopoly (Cetorelli & Peretto, 2000).Bergstresser (2001) analyzed the 1983 US consumer finance survey data and found that consumers face less financial constraints in a market where banks are more concentrated. Bonaccorsi di Patti and Gobbi (2001) based on a research undertaken on the Italian firms identified that the bank concentration has positive impact on large credit volume to small and medium size firms whereas the same impact was found negative for the large firms.

The information-based hypothesis also implies that the high bank concentration improves interflow of borrowers' information among the banks reducing the information asymmetry of banks with their borrowers, which will mitigate financing constraints and favorably affect credit access to the borrowers (Carbó-Valverde et al., 2009). Zarutskie (2006) conducted a study on US private firms. Her results supported the evidence of information-based hypothesis with argument that less bank concentration coupled with high competition results in increased financial constraints for the borrowing firms owing to unavailability of borrowers' information to assess their credit quality in competitive markets which also induce banks to charge high interest rates. However, the same results were not robust for aged firms for whom leverage increased with the level of bank competition.

Hake (2012) investigated the bank concentration effect on leverage of manufacturing firms from eight Central, Eastern and Southeastern European (CESEE) countries for the period 2002-2007. They noted that bank concentration positively affects the firm leverage though their results for Estonia and Lithuania showed the negative impact of bank concentration on the firm leverage. Besides, they also found that bank concentration was negatively related with the firm age. Abadi et al. (2016) undertook a research on banks and firms from ASEAN countries, Latin America, Central Europe, Middle East and Africa. Their findings also supported the information-backed hypothesis with results that the high bank concentration is linked with favorable credit access conducive for firms' growth and investment.

2.3 Pecking Order Theory

Donaldson (1961) is the pioneer of pecking order theory. He identified that corporate managers prefer to use internal funds instead of external source of financing. The theory was later on modified by Myers and Majluf (1984) and Myers (1984). The theory asserts prioritizing of financing sources from internal funds to external debt with equity opted for as the last resort. This preference is considered in terms of financing cost. The placement of equity at the end is due to the high information asymmetry associated with equity in comparison to debt. Asymmetric information

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makes favorable the debt as a viable choice as issuing debt signals the firm's confidence that the potential investment opportunity is profitable and the firm's share prices are undervalued which if overvalued would have made the equity a favorable option. Thus, issuing equitywill convey a firm's signal of absence of confidence and the feel that the share prices are overvalued and so raising finances through equity would result in drop of share prices. Moreover, when the firms generate profit, they will use the same profit as internal source of financing to exploit the investments to achieve high growth, and hence they will avoid issuing debt and equity. Similarly, the firms having low profit but high prospects of growth will issue debt to finance the required investmentsowing to the scarcity of internal funds. This indicates negative relationship of debt with the profit. Therefore, increasing of profit will result inthe fall of debt ratio for those firms which use debt financing (Myers & Majluf, 1984). Other studies also support the same negative relationship between profit and firm leverage (Titman & Wessels, 1988; Rajan & Zingales, 1995; Booth et al., 2001;González &González, 2011; Shah & Ilyas, 2014; Adair & Adaskou, 2015). Pecking order theory also asserts the negative relationship of tangibility with the firm leverage arguing that tangibility may enhance the firm dependability on internal funds which are generated by these tangible assets (Harc, 2015). There are some other studies which also document the negative effect of asset tangibility on the firm leverage including Frank &Goyal (2009), Akdal (2010), Hsu et al. (2013), Malinić et al. (2013),Onofrei et al. (2015), Baloch et al. (2015), Acaravci (2015),Abbasi & Delghandi (2016), Hussain et al. (2016) andRahman (2017).

Another important assertion of pecking order theory supported by the existing literature is there is positive relationship of firm growth with the leverage. Titman & Wessels (1988) suggested the positive link between growth and firm financial leverage arguing that opportunities with growth prospects increase value of the firm thereby enhancing its debt capacity and accordingly the debt to book value ratio as the same additional firm value is not mirrored in the firm book value. Chittenden et al. (1996) identified that in line with the pecking order theory,growth opportunities coupled with absence of access to the financial markets induce the Small and Medium Enterprises (SMEs) to tap the debt financing. Adair and Adaskou (2015) based on a study conducted on French SMEsalso noticed impact of growth opportunities on the firm financial leverage.In the same vein, positive growth-leverage nexus was also noticed by Acaravci (2015) in a study undertaken on the Turkish firms and recently by Jarallah et al. (2018) for the Japanese nonfinancial firms covering the period 1991-2015. As regards Pakistani markets, considering the nonfinancial sector, a weak form of pecking order theory can be seen as firms having the favorable growth prospects are tending to gain financial flexibility and will prefer to use less long-term debt along with debt carrying few restrictions (Jibran et al., 2012). However, contrasting results in favor of strong form of pecking order theory by Hijazi and Shah (2004) and Shah and Ilyas (2014) were noticed for Pakistani nonfinancial companies. Therefore, the results are mixed which warrants the undertaking of this research study to augment the understanding of growth as the pertinent variable.

The pecking order theory also highlights inverse relationship of the firm size with its financialleverage.Firms with large size and high asset base, consider adverse selection problem more important, and so are less likely to be exposed to such problem which give them an edge to favorably issue the equity in comparison to the small size firms which have more problems of adverse selection (Frank & Goyal, 2007). The negative size-leverage relation is also identified by Drobetz et al.(2013) on the plea that large firms can provide information in a better manner to the outside investors as a result the adverse selection problem of these firms in case of issuing the equity will be low. The results of studies conducted by Ali et al. (2013), Wahome et al.(2015), Acaravci (2015) andBaloch et al. (2015) for Pakistani auto sector companies, Yasser (2016) for Pakistani listed companies, Hussain et al. (2016), Rahman (2017), andAhmad et al.(2017) for Pakistani nonfinancial companies also document negative effect of the firm size on leverage.

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However, contrasting results were found by Hallajian&Tilehnouei (2016)in a study based on the Indian firms which indicated no significant effect of firm size on leverage except for very few sectors for which the pertinent relationship was positive. Similarly, Dinçergök (2017) noted the mixed results in support of pecking order theory in case of smallest firms with negative relationship was identified between firm size and leverage whereas for large size firms the theoretical support was weak as the same relationship was positive. Her study was based on Turkish firms for the period from 2000 to 2007. In the same way, Adair & Adaskou (2015) also did not found the size effect on firm leverage so as either to reject or confirm predictions based on the pecking order theory.Similarly, Jamal et al., (2013) identified the positive relationship of firm size with financial leverage of the Malaysian companies. Cotei & Farhat (2009) also noted positive link between size and the firm long term debt though the same link was found negative with the short term debt.

Pecking order theory impliespositive link of the firm non-debt tax shield with its financial leverage. This is for the reason that non-debt tax shield act as proxyof the firm's securabilityto represent collateral for the debt, therefore, firms which have more secured assets owing to low risk exposure can avail the debt financing at low cost (Bradley et al., 1984). Other pertinent studies also identify the positive relationship between non-debt tax shield and firm leverage (DeAngelo & Masulis, 1980; Oino & Ukaegbu, 2015).

2.4 Trade-Off Theory

The trade-off theory can be traced to Modigliani and Miller (1963) who considered the income tax benefit as addition to their initial stance of capital structure irrelevance theorem.Pioneering work on the theory goes back toKraus and Litzenberger (1973)and Myers (1984) who viewed a balance between the dead–weight cost of bankruptcy and tax benefit of debt. In this regard, the theory provides a guide as how much to finance the debt versus equity so to balance the associated costsin order to optimize value of the firm. The theory is also regarded as competitive theory to the pecking order theory.Empirical evidence on the theory is also supportive as the crux of the theory is endorsed by different studies like Frank & Goyal (2009), Matemilola et al. (2012), Hardiyanto et al. (2014), Li & Stathis (2017), Liu (2017), Khan (2018), Jarallah et al. (2018) and Sakr & Bedeir (2019).The most significant evidence which goes against trade-off theory is the strong negative relationship between profit and financial leverage of the firm; however, the theory would predict the positive profit-leverage relationship as high profit means availability of more money to service the firm debt and more taxable income to be shielded (Myers, 1993). Titman & Wessels (1988) viewed that the firm past profitability and connectedly its retained earnings should be the important capital structure determinants.

As per the tax and bankruptcy cost perspective, the profitable firms substantially depend on debt (Frank & Goyal, 2009). Chen (2004) endorsed the stance of positive relationship between profit and firm leverage by attributing same to the signalling model which anticipates that the profitable and growing firms will more rely on the leverage. By doing so the managers intend to convey the signals of better firm prospects to the investors.Similarly, Oolderink (2013) also noted the positive relationship of profit with the firm financial leverage arguing that the same relationship can be accounted for by the "signaling" as rational investors are more likely to expect high value from high leverage and also with use of debt, the managers intend to signal better firm prospects to the outside investors.Antão & Bonfim (2012) asserted the positive effect of profit on firm leverage on the basis that profit reduces the bankruptcy cost and firms with high profit more favorably employ the tax benefit of debt financing (DeAngelo & Masulis, 1980). Besides, more profitable firms have spare free cash flow and hence paying the acquired debt will help to reduce the agent cost of equity by aligning the shareholders and mangers' interests (Jensen & Meckling, 1976; Jensen,

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1986). Salawu &Agboola (2008) found the positive effect of profit on the firm financial leverage for Nigerian firms asserting that tax advantage accompanied with debt financing is relevant to the firms. Degryse et al. (2012) conducted research on Dutch SMEs. Their results indicated the dominance of trade-off theory, as they found that some profitable firms maintain high leverage level.Çekrezi (2013) also is of the opinion that following trade-off theory, the profitable firms have less exposure to anticipated financial distress cost and value more the interest tax shield. According to Bassey et al. (2014), the firms with high profit should maintain high leverage level so as to be enabled to shield the same high profit from taxation. Hussain et al. (2016) found positive link between firm profit and leverage for Pakistani firms. Bahsh et al.(2018)defended the positive relation of profitability with the firm financial leverage asserting that the profitable firms can avail debt financing at the low interest. However, some pertinent studies like Qureshi et al. (2015),Abadi et al. (2016), Sunarto & Rely (2017), Briones & Chang (2017), Khan (2018) and Abel (2018) document the negative effect of firmprofitability on its leverage in conformance with the pecking order theory.

Trade-off theory also positspositive relation of the asset tangibility with the firm financial leverage as with increase in fixed assets, the firms will be in a better position to collateralize the same to favorably acquire the debt (Hovakimian et al., 2001; De Jong et al., 2008; Cortez & Susanto, 2012; Hake, 2012;Ali et al., 2013; Jahanzeb et al., 2014; Memon et al., 2015; Abadi et al., 2016; Rahman, 2017 &Sunarto & Rely, 2017).Bradley et al. (1984) highlighted that asset tangibility will increase the firm tendency to rely more on the leverage in line with Scott Jr (1977) that if debt of the firm is secured by the tangible assets, then the firm can acquire debt at low interest rates. Rajan & Zingales (1995) viewed that more tangible assets may be used as collateral for mitigating risk of lender, suffering the agency cost of debt (like shifting of risk) besides retaining more value in case of liquidation. Hence, with increase in tangible assets, there will be more willingness by the lenders to provide debt at the attractive terms. Chen (2004) identified the positive effect of asset tangibility on the firm financial leverage with assertion that the agency cost of equity results in underinvestment problem. Also due to information asymmetry, new equity is being underpriced whereas the debt issued against the secured tangible assets decreases the agency cost. Harc (2015) found the positive impact of firm tangible assets on the long term debt of Croatian SMEs. She interpreted that the tangible assets communicate positive signal to the creditors who may rely on sale of these assets in the event of bankruptcy.The results of a study conducted by Ogden and Wu (2013) based on US firms highlight that the firms having tangible assets will have the optimal leverage owing to the reason that such assets act as collateral which reduces cost of financial distress and agency cost of debt.

Trade-off theory has a prediction of negative growth-leverage relationship.Myers (1977) asserts that the growing firms tend to acquire low debt as the growth opportunities can lead to moral hazard and induce firms to take more risks with possibility to lose value when there is financial distress.Myers (1984) also viewed that the growing firms have tendency to borrow less and growth opportunities are less valuable when the firm is in financial distress. Titman & Wessels (1988) assert that the high equity firms may sub-optimally invest with the intention of expropriating wealth of the firm from the creditors. Moreover, the associated agency relationship cost is more likely to occur for growing firms; hence the anticipated growth should have negative relationship with the firm financial leverage. According to Auerbach (1983), growth has negativerelation with the firm financial leverage as growing firms have high possibility of more benefit of non-tax shield than the interest payment on debt. Kim &Sorensen (1986) also found that the high growing firms have less reliance on debt backing agency cost of the debt financing. Other pertinent studies also document the negative impact of growth on the firm financial leverage (Ooi,

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1999; Qiu & La, 2010; Baert & Vennet, 2008; Mateev &Ivanov, 2011;Ghazouani, 2013;Acaravci, 2015; Ramadan, 2015).

The trade-off theory also holds that there is positive relationship of size with the firm financial leverage. Ferri and Jones (1979) document that the large size firms beneficially are more diversified (Remmers et al., 1974), have convenient financial markets access, their debt credit rating is high and pay low ratesof interest (Pinches & Mingo, 1973). Large firms exhibit more diversification as compare to the small firms and have low expected bankruptcy cost which enable them to acquire more debt (Rajan & Zingales, 1995).Dittmar (2004) also assert that the large size firms have low exposure to bankruptcy than the smaller firms; that is why firms with low level of bankruptcy have potential to acquire debt on favorable terms.Shah and Ilyas (2014) and Qureshi et al. (2015) found positive relationship of size with the firm financial leverage for Pakistani companies backing the trade-off theory. The results of Akdal (2010) for UK based firms, Çekrezi (2013) for Albanian firms, Bassey et al. (2014) for Nigerian firms, Singh (2016) for nonfinancial Omani firms, Briones and Chang (2017) for Ecuadorian firms,Pontoh (2017) for Indonesian firms, Shah and Khan (2017) for Pakistani nonfinancial companies, Nenu et al. (2018) for Romanian firms, Santarelli and Tran (2018) for Vietnamese firms, andSakr and Bedeir (2019) for Egyptian nonfinancial firmsalso indicate the positive effect of size on the firm financial leverage in line with trade-off theory.

Trade-off theory states the negative link of non-debt tax shieldwith the leverage asin case of tax deductibility of interest, there will be the firm encouragement to rely more on debt in comparison to the non-debt tax shields (Modigliani & Miller, 1958).Supporting the trade-off theory, Chiarella et al. (1991), Graham & Tucker (2006) andSalawu andAgboola (2008)found the negative relation of non-debt tax shield with the firm leverage. Similarly, other pertinent studies also document the same negative relationship (Bennett & Donnelly, 1993; Oolderink, 2013; Shah & Khan, 2017; Ahmad et al., 2017, Li & Stathis, 2017). Hence, non-debt tax shield is a substitute of debt as the depletion allowance, depreciation and investment tax credit suggest that there is a market equilibrium wherein firms face a unique internal optimal leverage decision as either to go for leverage related cost or not. Besides, the favorable tax shield also results in decline of marginal tax benefit as the firm issues more debt (DeAngelo &Masulis, 1980). Firms may prefer non-debt tax shields over debt owing to different reasons like they cost less whereas debt involves payment of interest which is a costly expense. Furthermore, they also do not require additional outlay and to accompany the protective debt covenants which can result in high transaction cost. Also, they use the flexible accounting provisions to report reduced taxes without having an effect on the income statement (Clemente-Almendros & Sogorb-Mira, 2018).

In summary, above literature highlight the negative effect of bank concentration on the firm financial leverage in conformance with market power theory; however, information-based hypothesis asserts the positive relationship. As regards the control variables, in line with the pecking order theory, profitability, tangibility and firm size have negative effects on the firm financial leverage while firm growth, firm size and non-debt tax shield have positive effects. On the other hand, trade-off theory suggests the opposite effects of these control variables on the firm financial leverage contrary to the pecking order theory.

3. Methodology

3.1 Type of Data

Secondary data covering the period 2006-2017 is collected from official reports of the State Bank of Pakistan (SBP)

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3.2 Variables of the study

1. Bank Concentration

The independent variable, bank concentration was calculated using theHerfindahl-Hirschman Index (HHI). This is the most common measure of calculating the bank concentration (Rhoades, 1993; Tabak et al.,2009; Brezina et al., 2016) and is commonly used in evaluating the banking sector concentration (Tabak et al., 2009)With entry of a new firm in the industry, the underlying changes in HHI represent degree of change in the industry concentration and may stimulate the regulator's intervention (Naldi&Flamini, 2018). HHI equals to summing the squares of all the firms market share in an industry (Tabak et al., 2009) and its formula as follows: -

$$H = \sum_{i=1}^{N} Si^2$$

where s_i denotes firm imarket share in the industry, and N is the number of firms. When we take the percents as whole numbers such as 70 instead of 0.70, then the index can have range upto 100^2 or 10,000, in that case the formula becomes

$$H = \sum_{i=1}^{N} Si^2 \times 10{,}000$$

As per the Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission issued August 19, 2010[1], the markets or an industry can fall in any of the following three categories on the basis of HHI calculated for the industry.

- HHI score below 1500 illustrates un-concentrated industry/markets.
- HHI score 1500-2500 illustrates moderate level ofconcentrated industry/markets.
- HHI score greater than 2500 illustrates high level ofconcentrated industry/markets.

2. Firm Leverage

Financial leverage or more commonly referred to leverage, is the extent of firm debt (Ross et al., 2010). Therefore, the more appropriate measure of financial leverage will incorporate the level of debt acquired by the firm (Ishari et al., 2016).Long term debt is considered an integral part of financial leverage proxies, and in this regard, debt/equity ratio is the suitable financial leverage measure (Brealey et al., 2001). The same ratio is used in this study as the measure of firm leverage.

$$\text{Debt} - \text{equity ratio} = \frac{\text{Long} - \text{termdebt}}{\text{Equity}}$$

3. Return on Assets

The available literature document profitability as an important determinant of financial leverage of a firm. There are a number of measures of profitability but following Heikal et al., (2014);Vătavu (2015); Şamiloğlu et al., (2017);Rosikah et al. (2018); we employ the Return on Assets (ROA) as the proxy of profitability. This proxy indicates the managementability to generate high income using efficiently the firm assets.

$$\text{Return on Assets (ROA)} = \frac{\text{Profit after Tax}}{\text{Total Assets}}$$

[1] "Horizontal Merger Guidelines" are available at The United States, Department of Justice.

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4. Tangibility

The firm asset structure should have relevance to the financing decisions and in this view the tangible assets can act as collateral in order to offer more accessibility to the lender or serve as guarantee in the event of bankruptcy (Harc, 2015). Tangible assets refer to the physical assets which have relatively use for longer period in the business operation like land, building, machineries and under progress construction (Campello & Giambona, 2011; Ansari & Gowda, 2013; Nasution et al., 2017).Therefore, following Demirgüç-Kunt and Maksimovic (1999); Hall (2012); Köksal et al. (2013) and Amin et al. (2019) we employ the ratio of net fixed assets to total assets as the measure of tangibility or asset tangibility.

5. Firm Growth

The firm growth can either be external, due to the business combinations or internal, due to expansion in the firm's existing assets (Xia, 2007). Therefore, the increase in assets better captures internal dimension of the firm growth. Tingler (2015) considered assets, an important indicator to measure the firm growth while Cooper et al. (2008) regarded the year-to-year percentage changes in total assets as simple and comprehensive proxy of the firm growth. Therefore, we will employ the annual change in firm's total assets as proxy to measure the firm growth: -

$$\text{Firm Growth} = \frac{\text{Total Assets (Current Year)} - \text{Total Assets (Previous Year)}}{\text{Total Assets (Previous Year)}}$$

6. Firm Size

Firms are attentive to their firm size as determinant in managing the financial leverage which highlight its significance in financial policies (Hashini & Madumali, 2018).Following Obradovich and Gill (2012); Nawaiseh (2015); Hallajian and Tilehnouei (2016) and Hamouri et al. (2018) we employ the widely used, natural logarithm of total assets as proxy of the firm size.

7. Non-debt Tax Shield

According to Huang and Song (2006), the non-debt tax shield refers to tax deduction for the firm depreciation and investment credit. Non-debt tax shield is widely considered by the researchers as a variable affecting the capital structure selection (Sritharan, 2015).The available literature highlight that the non-debt tax shield may have relevance in shaping the financial leverage with one side taking it as variable to positively affect the financial leverage whereas the other side consider it a negative variable, hence, it can have implications either to be or not to be taken as a substitute of debt. We follow Kahle & Shastri (2005); Choi et al. (2014); Jovanovic (2015); and Suratno et al. (2017)to take commonly used,the ratio of deprecation to total assets as proxy of the non-debt tax shield.

3.3 Data Analysis Tools

Descriptive statistics and multiple regression analysis are used for the data analysis.Gujarati (2004) regarded (OLS) and maximum likelihood (ML) as the main methods for estimation but OLS has wide use because intuitively, it looks appealing and involves simple mathematics.The OLS has some desirable statistical properties due to which it is one the popular and most powerful method. Besides, OLS and ML estimators of the intercept and slope parameters are identical, considering the

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normality assumption. But, the OLS and ML estimators of error term variance (ui) are different though for large samples,these two estimators converge. Therefore, in this study OLS method is employed for estimation.

3.4 Econometric Model

The following equation illustrates the econometric model which is run for estimating the effects of independent and control variables on the dependent variable.

$$FL = \alpha + \beta_1 BC + \beta_2 ROA + \beta_3 TANG + \beta_4 FG + \beta_5 FS + \beta_6 NDTS + \varepsilon$$

Where;
FL = Firm Leverage
BC = Bank Concentration
ROA = Return on Assets
TANG = Asset Tangibility
FG = Firm Growth
FS = Firm Size
NDTS = Non-debt Tax Shield
ε = Error Term

4. Data Analysis

Following table shows results of the multiple regression analysis. In the first instance, regression assumptions are checked and their results are provided which shows the fulfillment of pertinent assumptions.

Table 2 Multiple Regression Assumptions

Type of Assumption	Specific test to check the assumption	Null Hypothesis	p-value of the test	Null hypothesis is accepted / rejected	Remarks
Normality of Data	Jarque-Bera Test	Data follows the normal distribution	0.7172	Accepted	Data follows the normal distribution
Heteroskedasticity	Breusch-Pagan/Cook-Weisberg test	Error variances are equal	0.2920	Accepted	There is homoscedasticity of residuals or equal variances.
Autocorrelation	Durbin-Watson test	Linear regression residuals are uncorrelated	0.3228	Accepted	There is no autcorrelation or linear regression residuals are uncorrelated

The 0.9 value of correlation coefficient indicates collinearity between the two variables (Asteriou & Hall, 2011).Correlation matrix (Table 3) illustrates the absence of multicollinearity as

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no value of correlation coefficient exceeds 0.9between anyof the two independent variables. Moreover, besides positive moderate correlation between the firm leverage and bank concentration, the firm leverage is negatively correlated with ROA, Tangibility, and Non-debt Tax Shield which suggests that the increase in these variables is negatively associated with the firm leverage. Firm leverage has positive but weak correlation with the firm growth and size which implies that high growing and large size firms may have tendency to rely more on the leverage. However, the results depict no significant correlation of the firm leverage with any independent variable whereasmost of the independent variables are significantly correlated with each other.

Table 3 Correlation Matrix

	Variables						
Variables	Firm Leverage	Bank Concentration	ROE	Tangibility	Growth	Size	Nondebt Tax Shield
Firm Leverage	1						
Bank Concentration	0.3603	1					
ROA	-0.3387	0.6174*	1				
Tangibility	-0.5137	0.436	0.7056*	1			
Growth	0.1073	0.5986*	0.3302	0.5427	1		
Size	0.2901	-0.5813*	-0.6937*	-0.9513**	-0.7341**	1	
Nondebt Tax Shield	-0.48	0.4687	0.7467*	0.8954**	0.4689	-0.8121*	1

*. Shows correlation significance at 0.05 level-2-tailed.
**. Shows correlation significance at 0.01 level-2-tailed.

Table 4highlights the descriptive statistics. Mean value of the firm leverage has a tendency towards minimum value of the data set which suggests that overall targeted companies have less reliance on financial leverage. Figure-1 also supports this as there is a sharp increase in the firm leverage until 2009 after which there is a steady decrease which overall shows a decrease in financial leverage. The mean value of bank concentration has slight tendency towards the maximum value of data set. The Figure-2 also shows that up to 2012 there was an overall increasing trend after which the bank concentration shows a decrease. The range of bank concentration values is from 650.09 to 781.13 which shows that the Pakistan's banking sector is a un-concentrated sector as per above guidelines of the U.S. Department of Justice and Federal Trade related to the classification of industry/markets concentration. The mean values of ROA and tangibility are tilted towards the minimum value which shows that profitability and use of fixed assets by the selected companies have decreased over the study period. Figure-3 and 4 also depict persistent decreasing trend in profitability and tangibility.The firm growth nearly illustrates mixed tend as its mean value shows closeness to the maximum value, however, Figure-5 illustrates that the firm growth overall has decreased until 2015 after which a substantial increase can be noted. As regards the firm size, its mean value is tended towards the maximum value.This is supported by very steady increasing trend as can be seen in the Figure-6. The mean of non-debt tax shield is slightly tended towards the minimum value which indicates decrease in the non-debt tax shield.

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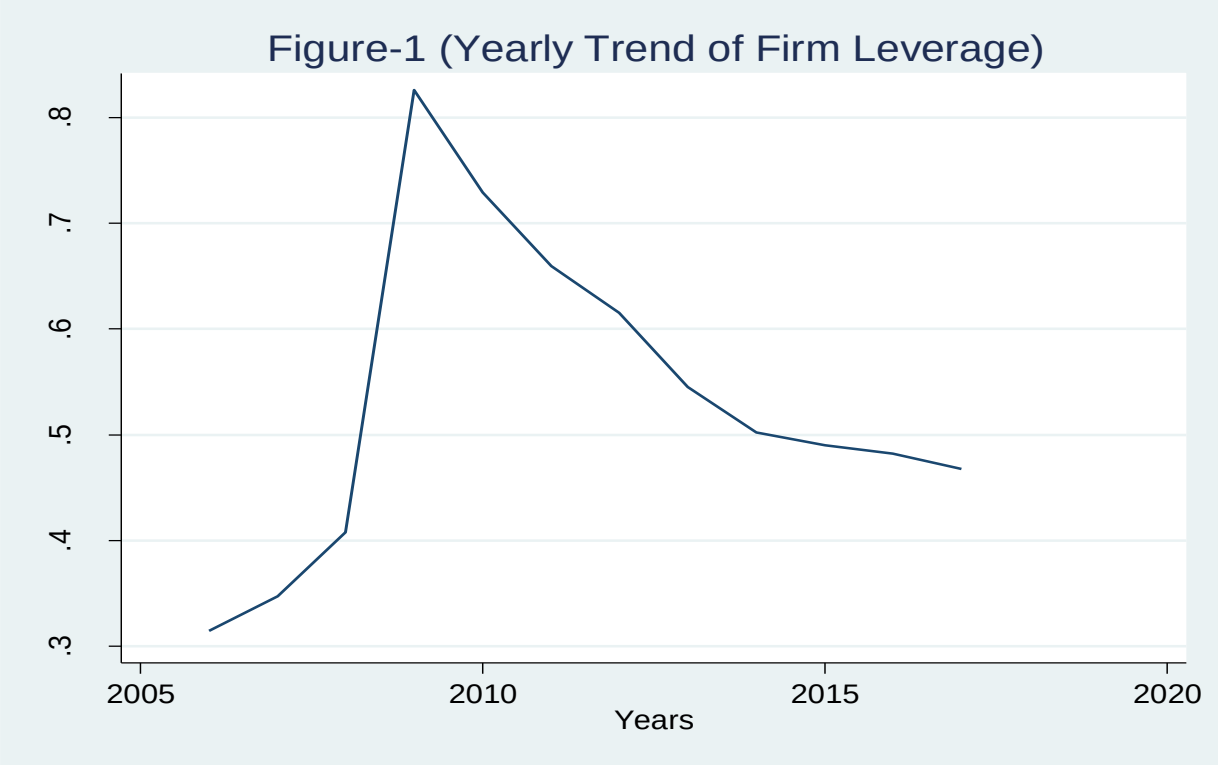
Figure-7 indorses this view as overall a decreasing trend of non-debt tax shield can be noticed. The individual values of standard deviation are small and most of values in the data set of each variable lie in the range of 1 standard deviation (mean± standard deviation) or ($\bar{x} \pm s$). This shows that overall; there is no large dispersion in the entire data.

Table 4 (Descriptive Statistics-Multiple Regression)

Variables	Mean	Standard Deviation	Minimum	Maximum
Firm Leverage	.5322304	.1522608	0.314418	0.826112
Bank Concentration	718.7249	44.15361	650.0897	781.1269
ROA	.0829167	.0245483	0.0529	0.14
Tangibility	.4132031	.0418752	0.362101	0.490637
Growth	.1332847	.0673793	0.016599	0.240558
Size	22.2066	.4172368	21.45175	22.73778
Nondebt Tax Shield	.0321008	.0024087	0.028994	0.036617



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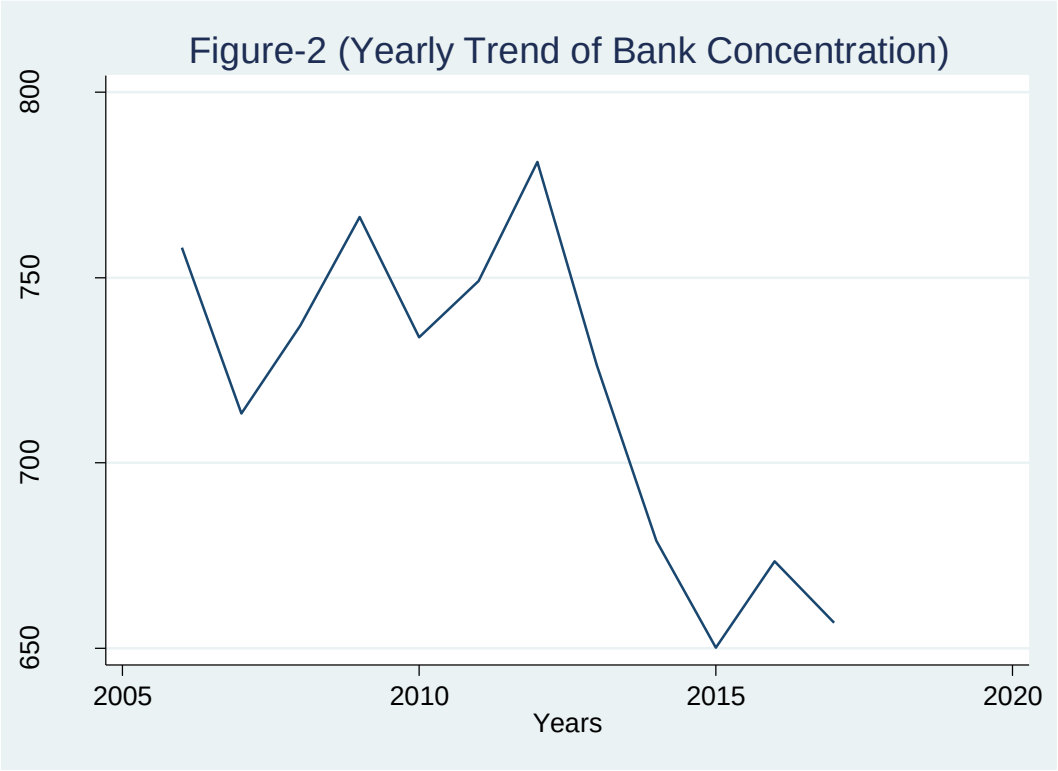

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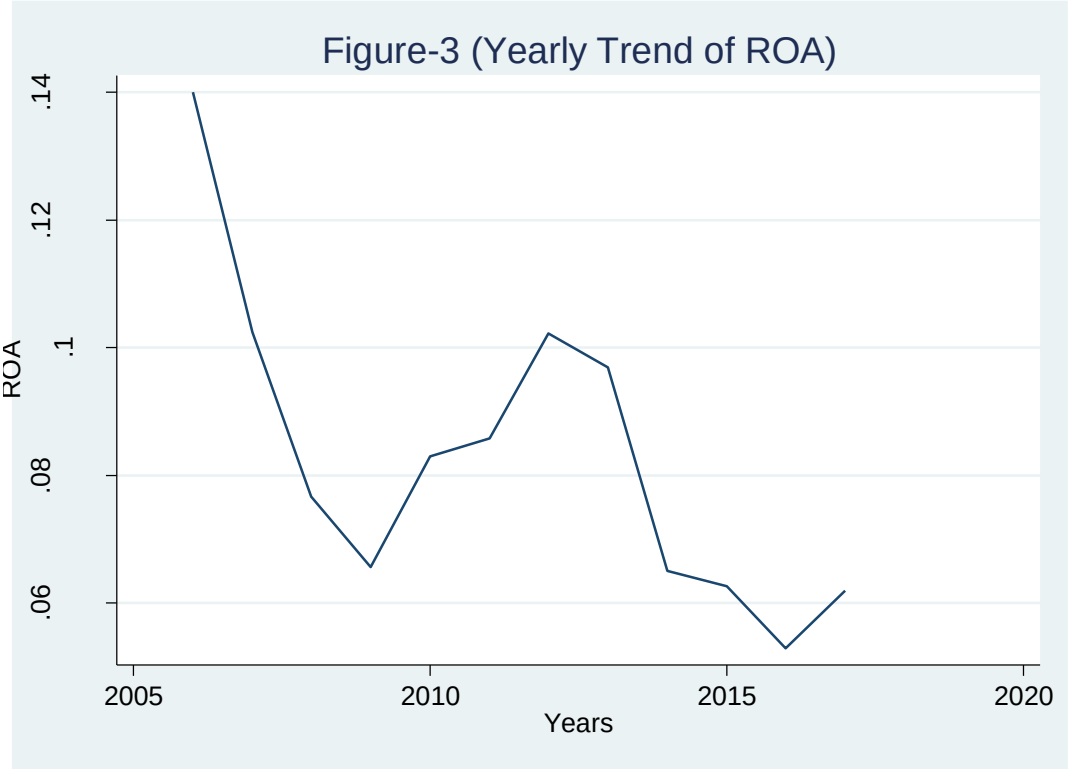

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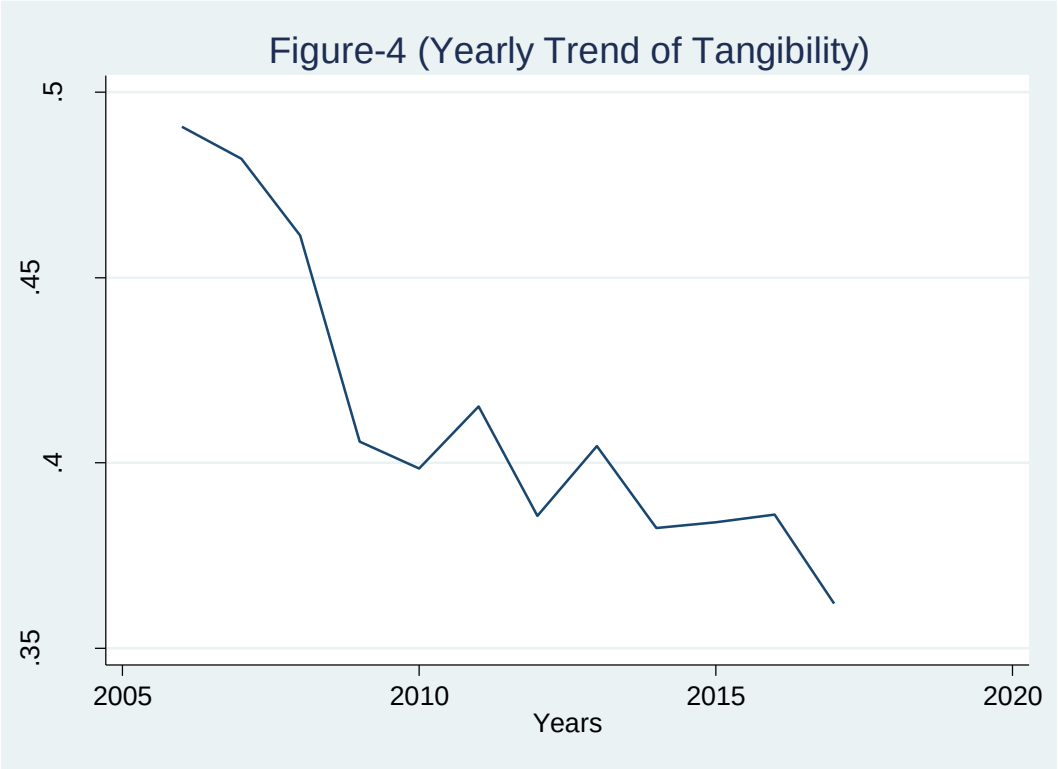

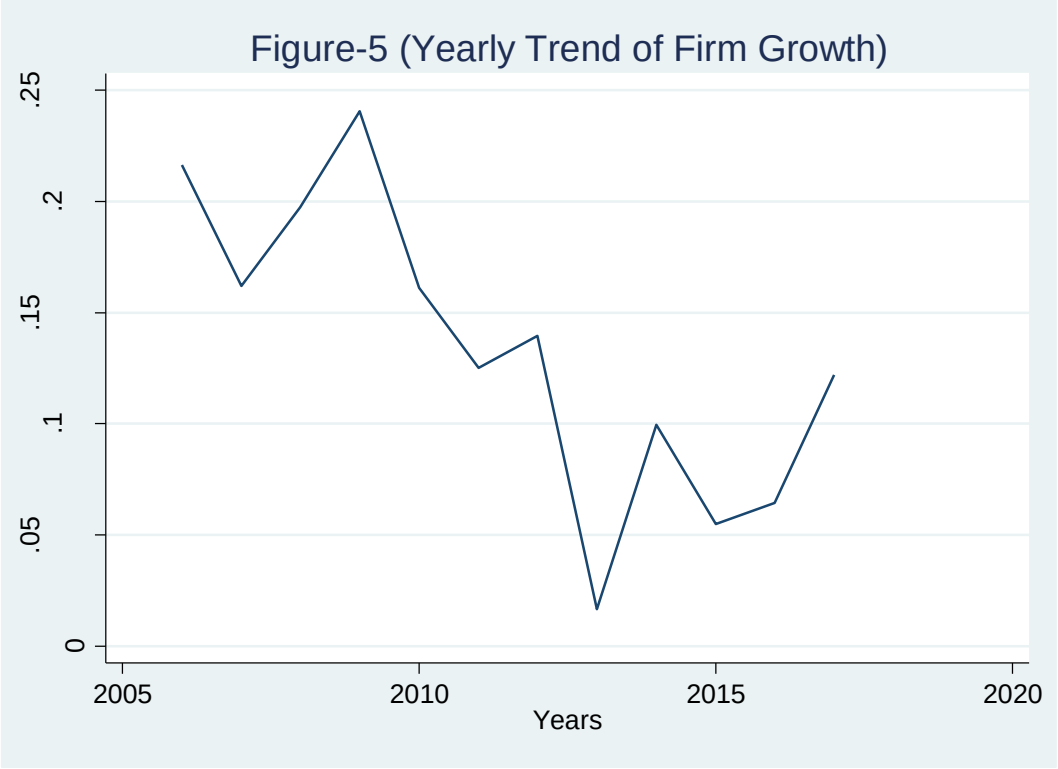

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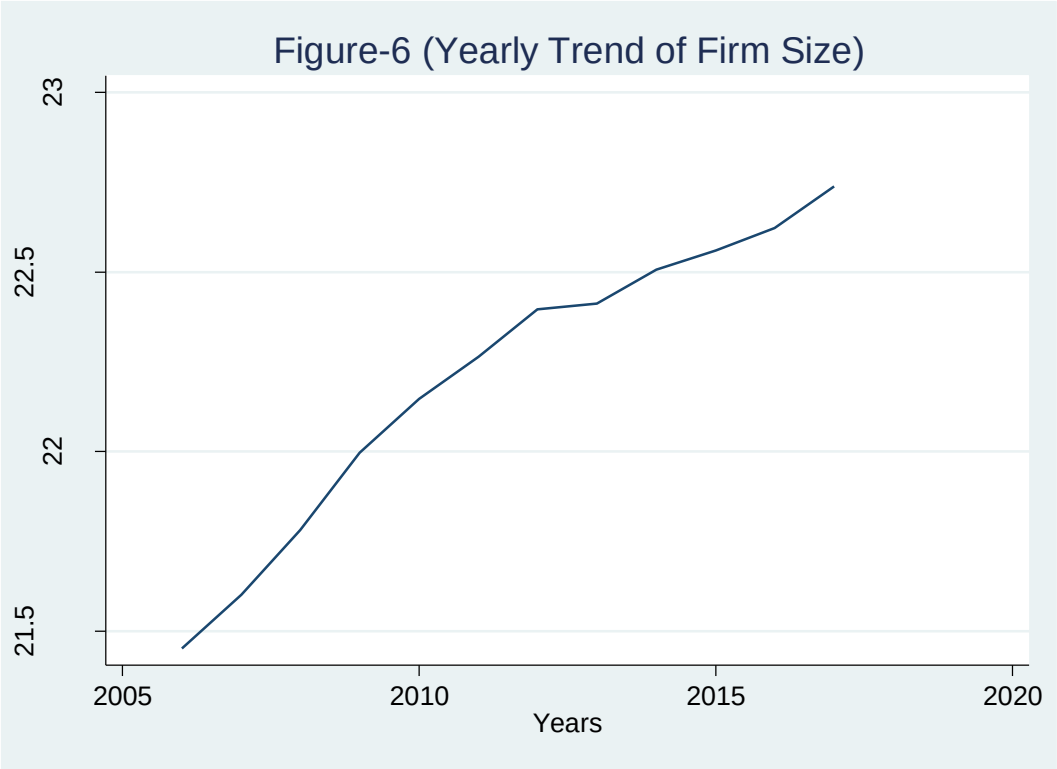

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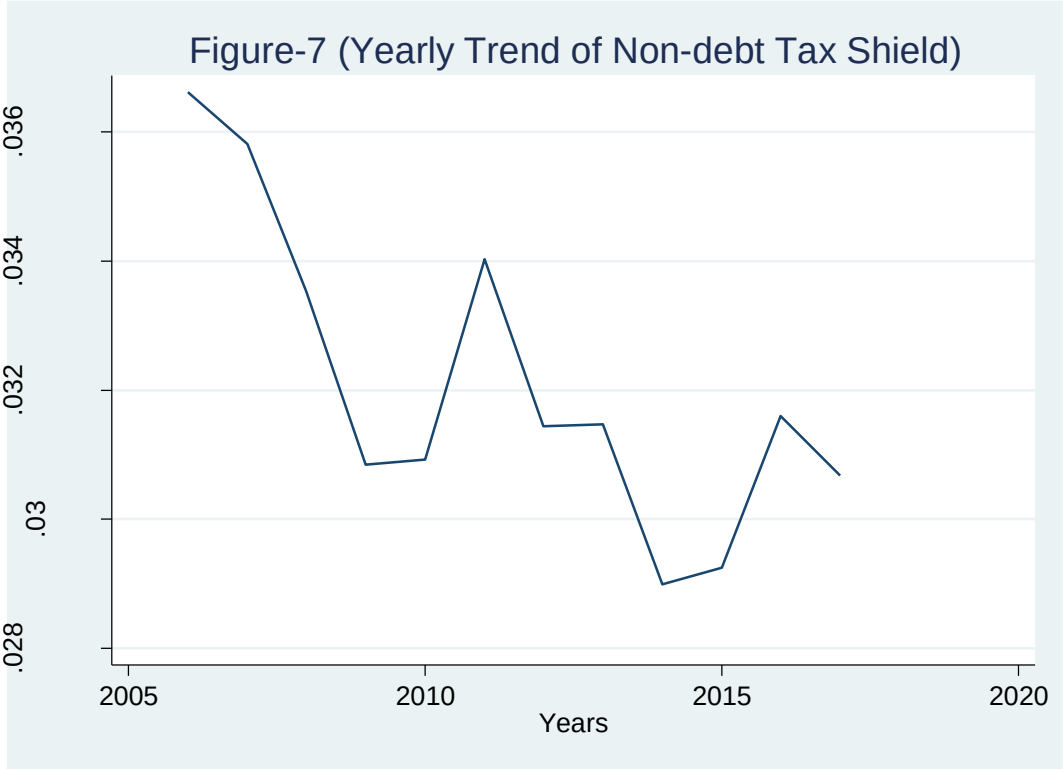

Table 5 shows results of the multiple regression analysis. F-Statistics has p-value less than 0.05 showing the model significance to really predict dependent variable from the independent variables. The R-squared value shows that 94.87 percent variation in the bank concentration can be attributed to the independent variables. There is also small difference between the value of R-squared and Adjusted R-squared. The value of Adjusted R-squared is also high which shows that considering the addition of more independent variables, 88.72 percent variation in dependent variable can be explained by the independent variables.The significant positive Beta coefficientof bank concentration suggests its positive effect on the firm leverage although thiseffect is very low as a 1 unit change in bank concentration will increase the firm leverage by only 0.0021. Thesignificant Beta coefficients of the remaining four independent variables arenegative which depicts that high profitable firms with more proportion of fixed assets are relying less on the financial leverage. Likewise, growing and large size firms have less reliance on financial leverage.The Beta coefficient of the last variable, non-debt tax shield is positive which suggests the favorable effect of this variable on financial leverage. However, this Beta coefficient is insignificant.

Table 5 (Multiple Regression Results)

Dependent Variable: Firm Leverage	**F-Statistics**	**Prob > F**	**R-squared**	**Adjusted R-squared**
	15.42	0.0044	0.9487	0.8872
Variables	**Coefficient**		**t-statistics**	**P>t**
Bank	0.002079		3.40	0.019

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Concentration			
ROA	-4.68384	-3.72	0.014
Tangibility	-14.0722	-4.19	0.009
Growth	-2.0856	-3.13	0.026
Size	-1.32681	-3.85	0.012
Nondebt Tax Shield	47.21272	2.17	0.082
Constant	33.46754	3.80	0.013

5. Discussion

The above results indicate that the level of concentration in Pakistan's banking sector has decreased specifically after 2012. This view is in line with Khan (2009) who also noted the same low concentration and high competition in banking sectorof Pakistan with assertion that mergers and acquisitions of mid-size banks to meet the minimum capital requirement of SBP can be a reason of this low bank concentration as the market share of top 10 banks has increased and that of top 5 banks has decreased. He also asserted that despite these mergers and acquisitions a very little decrease can be seen in number of the scheduled banks where decrease in number of banks due to the mergers and acquisitions is considerably covered by the opening of Islamic banks which may also have contributed to the low concentration in Pakistan's banking sector.

The results also illustrate that the bank concentration has very low significant positive effect on the firm leverage, and are in line with results of other related studies like Petersen and Rajan (1995), DeYoung et al. (1999), Bergstresser (2001), Hake (2012)and Abadi et al. (2016). This suggests that when there is more concentration in the banking sector, it will make less the firms financially constrained thus supporting the information-based hypothesis. This also implies that the Pakistani banks concentration may lead to better credit access by the firms which can also have the implications for the policy makers predominantly principal regulator, the State bank of Pakistan (SBP). Thus, following Carbó-Valverde et al. (2009), in Pakistani context, the bank concentration can improve the inter-bank flow of borrowers' related information that can mitigate information asymmetry between the banks and concerned borrowers which will also decrease the financing constraints and making favorable the credit access.

As regards control variables, the results illustrate negative significant effect of ROA, tangibility andsize on the firm leveragein conformance with pecking order theory. Relationship of ROA with the firm leverage highlight the view that growing firms with low profit may rely on debt financing owing to the scarcity of internal funds (Myers & Majluf, 1984). The profitable firms will give preference to the cash flow funding so as to be independent and avoid the information asymmetry, hence the firms will resort to debt financing when they drain out their ability of generating the internal funds (Adair & Adaskou, 2015).The negative relationship of tangibility with the firm leverage implies that the high level of tangible assets may increase firm reliance on the internal funds which these assets generate (Harc, 2015). Besides, tangible assets accompany high depreciation funds that generate funds which are available for the internal financing, detrimental to the external sources of funds (Onofrei et al., 2015).Similarly, the negative effect of firm size on the firm leverage suggests that large firms have access to the equity markets at attractive terms and may have high level of accumulated internal finances than the small firms (Titman & Wessels, 1988; Sundas, 2019). Therefore, following the patterns of pecking order in financing choices, the large firms will have tendency of low reliance on financial leverage (Ezeoha, 2008). The results are also in conformance with Frank and Goyal (2007) who assert that large firms owing to having the high

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asset base, prefer to be less exposed to the adverse selection problem and therefore, rely more on equity than the debt financing.

Resultsillustrate negative effect of the firm growth on firm leverage in line with Trade-off Theory, supporting results of other studies like Myers (1977) who argue that the growth opportunities can lead to moral hazard and induce firms for undertaking risk with probability of loss of value in the instances financial distress and for this reason growing firms rely less on debt, andAuerbach (1983) who viewed that the growing firms exploit more the benefit of non-debt tax shield than to acquire debt and pay the interest. The results also endorse the notion that as the growth opportunities are invaluable in bankruptcy, so the financial distress cost related to debt financing will be more for the firms having more growth prospects or opportunities (Myers, 1984; Harris & Raviv, 1991).

Finally,results indicate the insignificant positive effect of non-debt tax shield on the firm leverage. These results though insignificant,show conformance with Pecking Order theory and are similar to Bradley et al. (1984) who considered non-debt tax shield to increase the securability of having more secured assets to have less risk exposure and so in this case firms can avail the low cost debt favorably.The results are also in line with Dammon and Senbet (1988) and Graham (2013) who viewed that the non-debt tax shield is positively related with investment and profitability, and if profitable (high tax-rate) firms heavily invest and borrow to support this investment then this can force a positive relationship of debt with the non-debt tax shield andovercome tax substitution effect between non-tax debt shield and interest.

Conclusion

In Pakistan, bank concentration is one of important areas of concern where historically banking sector has been dominated by the few banks. The country' banking sector being the major source of finance is like a backbone to optimally channelize credit to the productive industries and hence a vital sector for an emerging economy like Pakistan where economic growth has slowed down in recent years demanding favorable access to credit by the companies. This requires the investigation of pertinent variables affecting the level of firm leverage. Bank concentration is an area which is not investigated in terms of its effect on the leverage ofPakistani nonfinancial companies.Therefore, this study enriches existing literature by examining banking sector concentration-firm leverage relationship, controlling for those specific factors which can also affect the financial leverage. The study employs the ordinary least squares (OLS) method of estimation. The study also provides an overview of theoretical and empirical perspective in relation to the effect of bank concentration and control variables on the firm leverage.The common measure of bank concentration, Herfindahl-Hirschman-Index (HHI) is employed to calculate the level of banking sector concentration using the sample of 29 banks covering the period from 2006 to 2017 whereas aggregate level data of firm leverage and control variables of Pakistani non-financial companies are taken.

Descriptive statistics and multiple regression analysis were employed for the analysis of data. Results indicated that the selected companies have less reliance on financial leverage. ROA, tangibility and firm size showed significant negative effect on the firm leverage in conformance with the pecking order theory. Firmgrowth was noted to have the significant negative effect on financial leverage supporting the trade-off theory. The effect of non-debt tax shield and firm leverage is in line with the pecking order theory although the same effect was insignificant and positive.

The results indicated that overall, the concentration in Pakistan's banking sector is very low and this sector is un-concentrated. The reasons may be attributed to the mergers and acquisitions of mid-size banks which have reduced the market share of top 5 banks and opening of Islamic banks.The regression results illustrate that the bank concentration has very low positive significant

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effect on the firm leverage in line with the information-based hypothesis and previous studies which implies that the level of concentration of Pakistani banks can decrease the information asymmetry between the banks and borrowers which in turn will decrease financial constraints to make easy the credit access. This also shows that low competition among the banks can increase firms' access to the credit. In this view, this study has implications pertaining to firms' accessibility to the credit asbank concentration reflects greater availability of bank credit which may productively be used to contribute towards economic growth and the same may call for formulating and executing accordingly the banking sector policies.

References

Abadi, F., Bany-Ariffin, A. N., Kokoszczynski, R., & Azman-Saini, W. N. W. (2016). The impact of banking concentration on firm leverage in emerging markets. International Journal of Emerging Markets, 11(4), 550-568.

Abbasi, E., & Delghandi & M. (2016). Impact of Firm Specific Factors on Capital Structure based on Trade off Theory and Pecking Order Theory - An Empirical Study of the Tehran's Stock Market Companies. Arabian Journal of Business and Management Review, 6(2), 1-4.

Abel, A. B. (2018). Optimal Debt and Profitability in the Trade-Off Theory. The Journal of Finance, 73(1), 95-143.

Acaravci, S. K. (2015). The Determinants of Capital Structure: Evidence from the Turkish Manufacturing Sector. International Journal of Economics and Financial Issues, 5(1), 158-171.

Adair, P.,& Adaskou, M. (2015). Trade-off theory vs. pecking order theory and the determinants of corporate leverage: Evidence from a panel data analysis upon French SMEs (2002–2010). Cogent Economics & Finance, 3(1), 1-12.

Ahmad, S., Khan, M. N., Ilyas, M., & Khan, M. T. (2017). Capital Structure and its Determinants: A Case of Non-Financial Firms Listed on Pakistan Stock Exchange. Journal of Business and Tourism, 3(2), 11-22.

Ahmed, N., Ahmed, Z., & Ahmed, I. (2010). Determinants of Capital Structure: A Case of Life Insurance Sector of Pakistan. European Journal of Economics, Finance and Administrative Sciences, (24), 7-12.

Akbar, M., Ali, S., & Tariq, F. (2009). The determinants of capital structure in the textile sector of Pakistan. Business & Economic Review, 1(1), 15-19.

Akdal, S. (2010). How do Firm Characteristics Affect Capital Structure? Some UK Evidence. Munich Personal RePEc Archive (MPRA) Paper No. 29199, 1-53.

Ali, M. S., Yadav, R., & Jamal, Md. A. (2013). Theories of Capital Structure: Analysis of Capital Structure Determinants. International Research Journal of Management Science & Technology, 4(3), 695-704.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Allen,F.,& Gale, D. (2001). Comparing Financial Systems. London, England: The MIT Press Cambridge, Massachusetts.

Amin, M. Y., Besim, M., &Ul Haq, Z. (2019). Does state ownership really matter for capital structure in selected G-20 economies? Economic Research-Ekonomska Istraživanja, 32(1), 3144-3161.

Andaleeb, S., Abbasi, M. A.,Naqvi, S. I. H., & Ali, S. (2018). Determinants of Capital Structure of Leasing Companies inPakistan. Archives of Business Research, 6(3), 104-119.

Ansari, M., Gowda, M. S. (2013). Impacts of asset tangibility and capital structure on financial performance of listed oil and gas companies in India. EPRA International Journal of Economic and Business Review, 5(12),110-114.

Antão, P.,& Bonfim, D. (2012). The dynamics of capital structure decisions. Banco de Portugal, Economics and Research Department Working Paper.

Asteriou, D., &Hall, S. G.H.(2011). Applied Econometrics (2nd ed.). New York, Palgrave Macmillan

Auerbach, A. J. (1983). Real determinants of corporate leverage. National Bureau of Economic Research (NBER) Working Paper No. 1151.

Baert, L., & Vennet, R. V. (2008). Bank Market Structure and Firm Capital Structure in Europe. FINESS Working Paper, No. D.2.1, German Institute for Economic Research (DIW Berlin).

Bahsh, R. A., Alattar, A., & Yusuf, A. N. (2018). Firm, Industry and Country Level Determinants of Capital Structure: Evidence from Jordan. International Journal of Economics and Financial Issues, 8(2), 175-190.

Baloch, Q. B., Ihsan, A., Kakakhel, S. J.,& Sethi, S. (2015). Impact of Firm Size, Asset Tangibility and Retained Earnings on Financial Leverage: Evidence from Auto Sector, Pakistan. Abasyn Journal of Social Sciences, 8(1), 143-155.

Bassey, N. E., Arene, C. J., & Akpaeti, A. J. (2014). Comparative study of the determinants of capital structure of quoted and unquoted agro-based firms in Nigeria. International Journal of Food and Agricultural Economics, 2(2), 155-168.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2003a). Bank concentration and crises. National Bureau of Economic Research (NBER) Working Paper No. 99210.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2003b). Bank competition, financing obstacles, and access to credit. World Bank Research GroupWorking Paper No. 2996.

Bennett, M. & R. Donnelly (1993) The Determinants of Capital Structure: Some UK Evidence. The British Accounting Review 25(1), 43–59.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Berger, A. N., Hasan, I., & Klapper, L. F. (2004). Further Evidence on the Link between Finance and Growth: An International Analysis of Community Banking and Economic Performance, Journal of Financial Services Research, 25(2-3), 169-202.

Bergstresser, D. (2001): Banking market concentration and consumer credit constraints: Evidence from the 1983 Survey of Consumer Finances.Harvard Business School Working paper No.10-077.

Bonaccorsi di Patti, E., & Gobbi, G. (2001). The Effects of Bank Consolidation and Market Entry on Small Business Lending. Working Paper No. 404, Bank of Italy, Economic Research and International Relations Area.

Booth, L., Aivazian, V., Demirguc-Kunt, A., & Maksimovic, V. (2001). Capital Structures in Developing Countries. The Journal of Finance. 56(1), 87-130.

Boyd, J. H., & Graham, S. L. (1991). Investigating the banking consolidation trend. Federal Reserve Bank of Minneapolis Quarterly Review, 15(2), 3-15.

Bradley, M., Jarrell, G. A., & Kim, E. H. (1984) On the Existence of an Optimal Capital Structure: Theory and Evidence. The Journal of Finance 39(3), 857– 878.

Brealey, R. A., Myers, S. C., &Marcus, A. J. (2001). Fundamentals of Corporate Finance. (3rd Ed.). McGraw-Hill, United States of America.

Brezina, I., Pekár, j., Čičková, Z., &Reiff, M. (2016). Herfindahl–Hirschman index level of concentration values modification and analysis of their change. Central European Journal of Operations Research, 24(1), 49-72

Briones, O., & Chang, M. (2017). A Combined Assessment of Capital Structure Determinants in a Developing Economy. International Research Journal of Finance and Economics, 162, 75-87.

Campello, M., &Giambona, E. (2011). Capital Structure and the Redeployability of Tangible Assets. Duisenberg school of finance - Tinbergen Institute Discussion Paper.

Carbó-Valverde, S., Rodríguez-Fernández, F., & Udell, G. F. (2009). Bank Market Power and SME Financing Constraints. Review of Finance, 13(2), 309–340.

Çekrezi, A. (2013). Impact of firm specific factors on capital structure decision: An empirical study of Albanian firms. European Journal of Sustainable Development, 2(4), 135-148.

Cetorelli, N&Peretto, P. F. (2000). Oligopoly Banking and Capital Accumulation. Federal Reserve Bank of Chicago Working Paper No. 2000-12.

Cevheroglu-Acar, M. G. (2018). Determinants of Capital Structure: Empirical Evidence from Turkey. Journal of Management and Sustainability, 8(1), 31-45.

Chen, J. J. (2004). Determinants of capital structure of Chinese-listed companies. Journal of Business Research, 57(12), 1341-1351.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Chiarella, C., Pham, T. M., Sim, A. B., & Tan, M. M.L. (1991). Determinants of Corporate Capital Structure: Australian Evidence. School of Finance and Economics, University of Technology Sydney, Working Paper No.3.

Chittenden, F., Hall, G., & Hutchinson, P. (1996). Small Firm Growth, Access to Capital Markets and Financial Structure: Review of Issues and an Empirical Investigation. Small Business Economics, 8(1), 59-67.

Choi, J. K, Yoo, S. K., Kim, J. H., & Kim, J. J. (2014). Capital Structure Determinants among Construction Companies in South Korea: A Quantile Regression Approach. Journal of Asian Architecture and Building Engineering, 13(1), 93-100.

Clemente-Almendros, J. A., & Sogorb-Mira, F. (2018). Costs of debt, tax benefits and a new measure of non-debt tax shields: examining debt conservatism in Spanish listed firms. Revista de Contabilidad, 21(2), 162-175.

Collins, N. R., & Preston, L. E. (1969). Price-Cost Margins and Industry Structure. The Review of Economics and Statistics, 51(3), 271-286.

Cooper, M. J., Gulen, H., &Schill, M. J. (2008). Asset Growth and the Cross-Section of Stock Returns. The Journal of Finance, 63(4),1609-1651.

Cortez, M. A., & Susanto, S. (2012). The determinants of corporate capital structure: Evidence from Japanese manufacturing companies. Journal of International Business Research, 11(Special Issue Number 3), 121-134.

Cotei, C., & Farhat, J. (2009). The trade-off theory and the pecking order theory: are they mutually exclusive? North American Journal of Finance and Banking Research, 3(3), 1-16.

Dammon, M., & Senbet, L. W. (1988).Effect of Taxes and Depreciation on Corporate Investment and Financial Leverage. The Journal of Finance, 43(2), 357-373.

Donaldson, G. (1961). Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity. Boston, Division of Research, Graduate School of Business Administration, Harvard University.

DeAngelo, H., & Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. Journal of Financial Economics, 8(1), 3-29.

De Jong, A., Kabir, R., & Nguyen, T. T. (2008). Capital structure around the world: The roles of firm- and country-specific determinants. Journal of Banking & Finance, 32(9), 1954-1969.

Degryse, H., Goeij, P. de., & Kappert, P. (2012). The impact of firm and industry characteristics on small firms' capital structure. Small Business Economics, 38(4), 431-447.

Degryse, H., Kim, M., & Ongena, S. (2009): Microeconometrics of Banking: Methods, Applications, and Results. Oxford University Press.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Demirgüç-Kunt, A., &Maksimovic, V. (1999). Institutions, financial markets, and firm debt maturity. Journal of Financial Economics, 54(3), 295-336.

DeYoung, R., Goldberg, L. G., & White, L. J. (1999). Youth, Adolescence, and Maturity of Banks. Credit Availability to Small Business in an Era of Banking Consolidation. Journal of Banking and Finance, 23(2-4), 463-492.

Dick, A. A. (2006). Nationwide branching and its impact on market structure, quality, and bank performance. The Journal of Business, 79(2), 567-592.

Dinçergök, B. (2017). The Effect of Firm Size on Capital Structure Decisions: An Application on BIST Manufacturing Sector Firms. Journal of Business Research – Turk, 9(2), 89-109.

Dittmar, A. (2004). Capital structure in corporate spin-offs.The Journal of Business, 77(1), 9-43.

Drobetz, W., Gounopoulos, D., Merikas, A., & Schröder, H. (2013). Capital structure decisions of globally-listed shipping companies. Transportation Research Part E: Logistics and Transportation Review, 52, 49-76.

Ezeoha, A. E. (2008). Firm size and corporate financial-leverage choice in a developing economy Evidence from Nigeria. The Journal of Risk Finance, 9(4), 351-364.

Ferri, M. G., & Jones, W. H. (1979). Determinants of Financial Structure: a New Methodological Approach. The Journal of Finance, 34(3), 631-644.

Frank, M. Z., & Goyal, V. K. (2007). Trade-off and Pecking Order Theories of Debt. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=670543

Frank, M. Z., & Goyal, V. K. (2009). Capital Structure Decisions: Which Factors Are Reliably Important? Financial Management, 38(1), 1-37.

Ghazouani, T. (2013). The Capital Structure through the Trade-Off Theory: Evidence from Tunisian Firm. International Journal of Economics and Financial Issues, 3(3), 625-636.

González, V. M., & González, F. (2011). Firm size and capital structure: evidence using dynamic panel data. Applied Economics, 44(36), 4745-4754.

Graham, J. R. (2013). Do taxes affect corporate decisions? A review. Handbook of the Economics of Finance , 2, 123-210.

Graham, J. R., & Tucker, A. L. (2006). Tax shelters and corporate debt policy. Journal of Financial Economics, 81(3), 563-594.

Gujarati, D. N. (2004).Basic Econometrics, McGraw-Hill,Inc. New York.

Hake, M. (2012). Banking Sector Concentration and Firm Indebtedness: Evidence from Central and Eastern Europe. Focus on European Economic Integration (3), 48-68.

Hall, R. E. (2018). New evidence on the markup of prices over marginal costs and the role of mega-firms in the US Economy. National Bureau of Economic Research (NBER) Working Paper No. 99210

Hall, T. W. (2012). The collateral channel: Evidence on leverage and asset tangibility. Journal of Corporate Finance, 18(3), 570-583.

Hallajian, E., & Tilehnouei, M. H. (2016). Impact of Firm Size on Leverage: An Empirical Study of Companies Listed on NSE of India. International Journal of Scientific Research, 5(5), 99-101.

Hamouri, B., Al-Rdaydeh, M., &Ghazalat, A. (2018). Effect of financial leverage on firm growth: empirical evidence from listed firms in Amman stock exchange. Investment Management and Financial Innovations, 15(2), 154-164.

Harc, M. (2015). The relationship between tangible assets and capital structure of small and medium-sized companies in Croatia. EKONOMSKI VJESNIK / ECONVIEWS: REVIEW OF CONTEMPORARY BUSINESS, ENTREPRENEURSHIP AND ECONOMIC ISSUES, 28(1), 213-224.

Hardiyanto, A. A. T., Achsani, N. A., Sembel, R., & Maulana, T. N. A. (2014). Testing Trade-Off Theory of Capital Structure: Empirical Evidence from Indonesian Listed Companies. Economics and Finance Review, 3(6), 13-20.

Harris, M., &Raviv, A. (1991). The Theory of Capital Structure. The Journal of Finance, 46(1), 297-355.

Hashini, A.M.C., &Madumali, P.A. (2018). Effect of firm size on financial leverage. Global Scientific Journals (GSJ), 6(7), 70-76.

Heikal, M., Khaddafi, M., &Ummah, A. (2014). Influence Analysis of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt To Equity Ratio (DER), and current ratio (CR), Against Corporate Profit Growth In Automotive In Indonesia Stock Exchange. International Journal of Academic Research in Business and Social Sciences, 4(2), 101-114.

Hellmann, T. F., Murdock, K. C., & Stiglitz, J. E. (2000).Liberalization, moral hazard in banking and prudential regulation: Are capital controls enough?The American Economic Review, 90(1), 147-165.

Hijazi, S. T., & Tariq, Y. B. (2006). Determinants of Capital Structure: a Case for Pakistani Cement Industry. Lahore Journal of Economics, 11(1), 63-80.

Hovakimian, A., Opler, T., & Titman, S. (2001). The Debt-Equity Choice. Journal of Financial and Quantitative Analysis, 36(1), 1- 24.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Hsu, C-Hao., Chiang, Y-C., & Liao, T. L. (2013).Testing pecking order behaviors from the viewpoint of multinational and domestic corporations. Investment Management and Financial Innovations, 10(2), 158-165.

Huang, G., & Song, F. M. (2006). The determinants of capital structure: Evidence from China. China Economic Review, 17(1), 14-36.

Hussain, S., Ilyas, M., Rehman, Mu., & Fatima, T. (2016). Investigation of relationship between capital structure determinants and market power on leverage: A case of Cement Sector in Pakistan. Science International, 28(3), 2847-2851.

Ishari, M. P. S., &Abeyrathna, S. P. G. M. (2016). The Impact of Financial Leverage on Firms' Value (Special Reference to Listed Manufacturing Companies in Sri Lanka). International Journal Of Advancement In Engineering Technology, Management and Applied Science, 3(7), 100-104.

Jahanzeb, A., Khan, S-u-R., & Bajuri, N. H. (2014). Determinants of Capital Structure and Human Capital. International Journal of Information Processing and Management (IJIPM), 5(4), 114-123.

Jamal, A. A. A., Geetha, C., Mohidin, R., Karim, M. R. A., Sang, L. T., & Ch‟ng, Y. (2013). Capital structure decisions: Evidence from large capitalized companies in Malaysia. Interdisciplinary Journal of Contemporary Research in Business, 5(5), 30-49.

Jarallah, S., Saleh, A. S., & Salim, R. (2018). Examining pecking order versus trade-off theories of capital structure: New evidence from Japanese firms. International Journal of Finance & Economics, 24(1), 1-8.

Jensen, M. C. (1986). Agency Cost of Free Cash Flow, Corporate Finance, and Takeovers. The American Economic Review, 76(2), 323-329.

Jensen, M. C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure.Journal of Financial Economics, 3(4), 305-360.

Jiang, F., Jiang, Z., Huang, J., Kim, K. A., & Nofsinger, J. R. (2017).Bank Competition and Leverage Adjustments. Financial Management, 46(4), 995-1022.

Jibran, S., Wajid, S. A., Waheed, I., & Muhammad, T. M. (2012). Pecking at Pecking Order Theory: Evidence from Pakistan's Non-financial Sector. Journal of Competitiveness, 4(4), 86-95.

Jovanovic, B. (2015). Determinants of corporate capital structure: Evidence from Macedonian panel data, Economic Analysis.National Bank of the Republic of Macedonia, Skopje, Research Report

Kabeer, M. A., &Rafique, S. (2018). The Determinants of Capital Structure: Evidence from Pakistani Manufacturing Companies. Journal of Banking and Finance Management, 1(3), 1-16.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Kahle, K. M., &Shastri, K. (2005). Firm Performance, Capital Structure, and the Tax Benefits of Employee Stock Options. Journal of Financial and Quantitative Analysis, 40(1), 135-160.

Khan, M. (2009).An Analysis of Degree of Competition in Banking Sector of Pakistan through a Direct Measure of Market Contestability.SBP Research Bulletin, 5(2), 35-52.

Khan, N. P. (2018). Capital structure decision: Which firm level and country level factors are reliably important in nonfinancial firms in Pakistan. City University Research Journal, 8(1),79-89.

Kim, W. S., & Sorensen, E. H. (1986). Evidence on the Impact of the Agency Costs of Debt on Corporate Debt Policy. Journal of Financial and Quantitative Analysis, 21(2), 131-144.

Köksal, B., Orman, C., &Arif, O. (2013). Determinants of Capital Structure: Evidence from a Major Emerging Market Economy. Munich Personal RePEc Archive (MPRA) Working Paper No.48415.

Kraus, A., & Litzenberger, R. H. (1973). A State-Preference Model of Optimal Financial Leverage. The Journal of Finance, 28(4), 911–922.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance.The Journal of Finance, 52(3), 1131–1150.

Li, H., & Stathis, P. (2017). Determinants of capital structure in Australia: An analysis of important factors. Managerial Finance, 43(8), 881-897.

Liu, W-C. (2017). Trade-off theory of capital structure: evidence from estimations of nonparametric and semi-parametric panel fixed effect models. Investment Management and Financial Innovations, 14(1), 115-123.

Malinić, D., Denčić-Mihajlov, K., & Ljubenović, E. (2013). The Determinants of Capital Structure in Emerging Capital Markets: Evidence from Serbia. European Research Studies, 16(2), 98-119.

Martin, S. (1988). Market power and/or efficiency? The Review of Economics and Statistics, 70(2), 331-335.

Mateev, M., & Ivanov, K. (2011). How SME uniqueness affects capital structure: Evidence from Central and Eastern Europe panel data. Quarterly Journal of Finance & Accounting, Special Issue, 50(1), 115-144.

Matemilola, B. T., Bany-Ariffin, A. N., & McGowan Jr., C. B. (2012). Trade off theory against pecking order theory of capital structure in a Nested Model: Panel GMM evidence from South Africa. The Global Journal of Finance and Economics, 9(2), 133-147.

Memon, P. A., Md Rus, R. BT., & Ghazali, Z. (2015). Dynamism of capital structure: Evidence from Pakistan. Journal of International Business and Economics, 3(1), 52-63.

M'ng, J. C. P., Rahman, M., & Sannacy, S. (2017). The determinants of capital structure: Evidence from public listed companies in Malaysia, Singapore and Thailand. Cogent Economics & Finance, 5(1), 1-34.

Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. American Economic Review, 48(3), 261-277.

Modigliani, F., & Miller, M. H. (1963). Corporate Income Taxes and the Cost of Capital: A Correction. American Economic Review, 433-444.

Myers, S. C. (1977). Determinants of corporate borrowing. Journal of Financial Economics, 5(2), 147-175.

Myers, S. C. (1984). The capital structure puzzle. The Journal of Finance, 39(3), 574-592.

Myers, S. C. (1993). Still Searching for Optimal Capital Structure. Journal of Applied Corporate Finance, 6(1), 4-14.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of financial economics, 13(2), 187-221.

Naldi, M., & Flamini, M. (2018). Dynamics of the Hirschman–Herfindahl Index under New Market Entries. Economic Papers: A journal of applied economics and policy, 37(3), 344-362.

Nasution, A A., Siregar, I., &Panggabean, R. (2017).The Effect of Profitability, Asset Tangibility, Corporate Tax, Non-debt Tax Shield and Inflation upon the Financial Capital Structure of the Manufacturing Companies listed on the Indonesian Stock Exchange. Advances in Economics, Business and Management Research, 36, 65-74.

Nawaiseh, R. I. S. (2015). Do profitability and size affect financial leverage of jordanian industrial listed companies?European Journal of Business and Innovation Research, 3(5), 1-12

Nenu, E. A., Vintilă, G., & Gherghina, Ş. C. (2018). The Impact of Capital Structure on Risk and Firm Performance: Empirical Evidence for the Bucharest Stock Exchange Listed Companies. International Journal of Financial Studies, 6(2), 1-29.

Obradovich, J., &Gill, A. (2012). The Impact of Corporate Governance and Financial Leverage on the Value of American Firms. International Research Journal of Finance and Economics, 91, 46-56.

Ogden, J. P., & Wu, S. (2013). Reassessing the effect of growth options on leverage. Journal of Corporate Finance, 23, 182-195.

Oino, I., & Ukaegbu, B. (2015). The impact of profitability on capital structure and speed of adjustment: An empirical examination of selected firms in Nigerian Stock Exchange. Research in International Business and Finance, 35, 111-121.

Onofrei, M., Tudose, M. B., Durdureanu, C., & Anton, S. G. (2015). Determinant factors of firm leverage: An empirical analysis at Iasi county level. Procedia Economics and Finance 20, 460-466.

Ooi, J. (1999).The determinants of capital structure Evidence on UK property companies. Journal of Property Investment & Finance, 17(5), 464 - 480.

Oolderink, P. (2013). Determinants of capital structure: Static trade-off theory vs. Pecking-order theory: Evidence from Dutch listed firms. (Bachelor's thesis, University of Twente).

Owen, A. L., & Pereira, J. M. (2018). Bank concentration, competition, and financial inclusion. Review of Development Finance, 8(1), 1-17.

Petersen, M. A. & Rajan, R. G. (1995). The Effect of Credit Market Competition on Lending Relationships. The Quarterly Journal of Economics, 110(2), 407-443.

Pinches, G. E.,& Mingo, K. A. (1973). A Multivariate Analysis of Industrial Bond Ratings. Journal of Finance, 28(1), 1-18.

Pontoh, W. (2017). The Capital Structure: Is Debt just a Policy or Requerement?. European Research Studies, 20(2), 128-139.

Qiu, M. & La, B. (2010). Firm Characteristics as Determinants of Capital Structures in Australia. International Journal of the Economics of Business. 17(3), 277-287.

Qureshi, M. A., Sheikh, N. A., & Khan, A. A. (2015). A revisit of pecking order theory versus trade-off theory: Evidence from Pakistan. Pakistan Journal of Commerce and Social Sciences, 9(2), 344-356.

Rahman, S-U. (2017). Macro economy and capital structure decision in Pakistani Insurance Sector. City University Research Journal, 7(2), 242-253.

Rajan, R. G., & Zingales, L. (1995).What Do We Know about Capital Structure? Some Evidence from International Data. The Journal of Finance, 50(5) 1421-1460.

Ramadan, I. Z. (2015). An empirical investigation of the trade-off theory: Evidence from Jordan. International Business Research, 8(4), 19-24.

Ratti, R. A., Lee, S., & Seol, Y. (2008). Bank concentration and financial constraints on firm-level investment in Europe. Journal of Banking and Finance 32(12), 2684-2694.

Remmers, L., Stonehill, A., Wright, R., & Beekhuisen, T. (1974). Industry and Size as Debt Ratio Determinants in Manufacturing Internationally. Financial Management, 3(2), 24-32.

Rhoades, S. A. (1993). The Herfindahl-Hirschman Index, Federal Reserve Bulletin: March Issue, p.188-189.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Rosikah., Prananingrum, D. K., Muthalib, D. A., Azis, M. I., &Rohansyah, M. (2018). Effects of Return on Asset, Return On Equity, Earning Per Share on Corporate Value. The International Journal of Engineering and Science (IJES), 7(3), 6-14.

Ross, S. A., Westerfield, R. W., &Jordan, B. D. (2010). Fundamentals of Corporate Finance. (6th Ed.). McGraw-Hill, Irwin, New York, USA.

Salawu, R. O., & Agboola, A. A. (2008). The determinants of capital structure of large non-financial listed firms in Nigeria. The International Journal of Business and Finance Research, 2(2), 75-84.

Sakr, A., & Bedeir, A. (2019). Firm Level Determinants of Capital Structure: Evidence From Egypt. International Journal of Financial Research, 10(1), 68-85.

Şamiloğlu, F., Öztop, A. O., &Kahraman, Y. E. (2017). The Determinants of Firm Financial Performance: Evidence From Istanbul Stock Exchange (BIST). IOSR Journal of Economics and Finance (IOSR-JEF), 8(6),62-67.

Santarelli, E., & Tran, H. T. (2018). The interaction of institutional quality and human capital in shaping the dynamics of capital structure in Viet Nam. United Nations University World Institute for Development Economics Research (WIDER) Working Paper 2018/66.

Scott Jr, J. H. (1977). Bankruptcy, secured debt, and optimal capital structure. The Journal of Finance, 32(1), 1-19.

Shah, A., & Hijazi, T. (2004). The Determinants of Capital Structure of Stock Exchange-listed Non-financial Firms in Pakistan. The Pakistan Development Review,43(4), 605–618.

Shah, A., & Ilyas, J. (2014). Is Negative Profitability-Leverage Relation the only Support for the Pecking Order Theory in Case of Pakistani Firms? The Pakistan Development Review, 53(1), 33-55.

Shah, M. H., & Khan, A. U. (2017). Factors Determining Capital Structure of Pakistani NonFinancial Firms. International Journal of Business Studies Review (IJBSR), 2(1), 46-59.

Sheikh, N. A., &Wang, Z. (2011). Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. Managerial Finance, 37(2), 117-133.

Singh, D. (2016). A panel data analysis of capital structure determinants: An empirical study of non-financial firms in Oman. International Journal of Economics and Financial Issues, 6(4). 1650-1656.

Sritharan, V. (2015).Do tax shields of debt and non debt impact on firms' performance?Evidence from Sri Lankan Land and property sector. Research Journal of Economics & Business Studies, 4(5), 10-22.

Ilkogretim Online - Elementary Education Online, 2020; Vol 19 (Issue 3): pp. 3241-3272
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2020.03.735491

Sunarto, H., & Rely, G. (2017). The determinants of capital structure (Evidence from Indonesia Manufacturing Companies Listed in Indonesia Stock Exchange for period 2010-2014). GSTF Journal on Business Review (GBR), 5(2), 1-7.

Sundas, S. (2019). Firm size and financial-leverage choice evidence from an emerging economy. International Journal of Commerce and Finance, 5(1), 25-33.

Suratno., Djaddang, S., &Ghozali, I. (2017).The Role of Business Risk and Non Debt Tax Shields to Debt to Equity Ratio on Pharmacy Listed Companies in Indonesia. International Journal of Economics and Financial Issues, 7(2), 73-80.

Tabak, B. M., Guerra, S. M., &De Souza Peñaloza, R. A. (2009). Banking concentration and the price-concentration relationship: the case of Brazil. International Journal of Accounting and Finance, 1(4), 415-435.

Tingler, S. (2015). The Modes of Firm Growth and Their Effects on Firm Performance-An Empirical Analysis of the Chemical Industry (Doctoral dissertation). Bergische Universität Wuppertal – Schumpeter School of Business and Economics, Germany.

Titman, S., & Wessels, R. (1988). The Determinants of Capital Structure Choice. The Journal of Finance, 43(1), 1-19.

Ullah, H., Iqbal, K., Sofwan, M. N., &Jan, M. F. (2018). Determinants of Capital Structure of Financial Firms in Pakistan. Journal of Management Research, 4(1), 40-52.

Vătavu, S. (2015) The impact of capital structure on financial performance in Romanian listed companies. Procedia Economics and Finance 32, 1314 – 1322.

Wahome, M. N., F. M., & Muturi, W. (2015). The effects of firm size and risk on Capital Structure decisions of Insurance Industry in Kenya. International Journal of Scientific and Research Publications, 5(8), 2-12.

Xia, F. F. (2007). Internal Growth, Tobin's q and Corporate Diversification. University of California at Los Angeles Working Paper

Yasser, F. (2016). Investigating the leverage composition of Pakistani firms through their determinants. Journal of Management and Research, 3(1), 18-32.

Zarutskie, R. (2006). Evidence on the effects of bank competition on firm borrowing and investment. Journal of Financial Economics, 81(3), 503–537.